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| **Project Name:** Student Attendance Management System  **Project Sponsor:** Dr. Ayman El-Sayed  **Project Manager:** Eng. Marwa Hassan  **Date:** October 3, 2025 |
| **Project Purpose and Justification:** The goal of this project is to develop an automated Student Attendance Management System for Future Tech University. This system will replace manual attendance tracking, reduce errors, and enhance reporting, supporting the university’s focus on digitization and operational efficiency. |
| **Project Description:** This project involves developing a web-based application enabling faculty to record and manage student attendance digitally. Students can check attendance in real-time, and administrators can generate detailed attendance reports. |
| **Project Objectives:**   * Develop and deploy the system by April 15, 2026 * Achieve 100% adoption by all faculty in the Computer Science department * Reduce manual attendance-processing time by 80% within the first semester * Ensure data accuracy with less than 1% error rate in attendance logs |
| **Deliverables:**   * Fully functional web application * User manual and training sessions for faculty * Attendance report generation module |
| **Milestones & Timeline:**   * Requirements gathering: Oct 2025 * Design prototype: Nov 2025 * Development: Dec 2025 – Mar 2026 * Testing: Mar 2026 * Deployment & training: Apr 2026 |
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| **Technical Requirements:**   * Platform: Web-based application compatible with modern browsers (Chrome, Firefox, Edge, Safari). * Operating System: Should operate on Windows 10/11, macOS, and Linux environments where browsers run. * Hardware: Compatible with university PCs, servers requiring minimum 8GB RAM, dual-core processor, and 100GB storage for database and logs. * Database: Use a scalable relational database system like MySQL or PostgreSQL for storing attendance, user profiles, and logs. * Performance: Support concurrent access by at least 1000 users with page load times under 5 seconds under normal load. * Security: Role-based access control; data encrypted in transit (TLS) and at rest; comply with data privacy regulations for student information. * Integration: API interfaces to connect with the university’s existing Learning Management System (LMS) and Student Information System (SIS). * User Interface: Responsive design, accessible via desktop and tablets; user-friendly for faculty and students with basic computer literacy. * Automation: Real-time attendance capture, automated daily and monthly report generation, and alert notifications for absences via email/SMS. * Backup and Recovery: Regular automated backup of critical data with restoration capability to minimize downtime. * Logging and Auditing: Maintain logs of user actions and attendance changes for security audits and compliance. |
| **Limits and Exclusions:**   * This project will not develop a mobile application version of the attendance system; only a web-based platform is included. * Integration is limited to the university’s existing Learning Management System (LMS) and Student Information System (SIS), excluding third-party or external systems. * Hardware procurement or upgrades (such as new servers or devices) are excluded and will be handled separately by the university’s IT department. * This project excludes providing real-time location tracking of students; attendance is based on manual or semi-automated check-in methods only. * User training beyond the initial faculty training sessions and user manuals is outside the scope. * Any future enhancements or expansions will require separate project approval and funding. * The project is limited by the allocated budget and timeline; no additional resources will be provisioned without formal amendment. |
| **Approval:**   * Project Sponsor: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_ * Project Manager: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_ |
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